

WHAT IS CLAIMED IS:

1. A filtering material for separating solid, particulate and gaseous materials from a fluid, said filtering material comprising a first particle filtering medium made of a nonwoven web on an inflow side of said filtering material; a second particle filtering medium made of a nonwoven web on a discharge side of said filtering material; an adsorbent layer of an electret material between said first and second particle filtering media, and an air-permeable foam layer containing at least one adsorptive, chemisorptive or catalytically effective substance.

2. A filter material according to claim 1, wherein the at least one adsorptive, chemisorptive or catalytically effective substance comprises activated carbon.

3. A filtering material according to claim 1, wherein said electret material comprises polycarbonate or polypropylene microfibers.

4. A filtering material according to claim 1, wherein said first and second particle filtering media are identical.

5. A filtering material according to claim 1, wherein said first and second particle filtering media are made of fibers of at least one polymer selected from the group consisting of polypropylene, polycarbonate, polyester, polyamide and polyterephthalate.

6. A filtering material according to claim 5, wherein said first and second particle filtering media are each made of a combination of at least two polymers selected from said group.

7. A filtering material according to claim 1, wherein the at least one adsorptive, chemisorptive or catalytically effective substance is selected

from the group consisting of activated carbon, silica gels, zeolites, polymeric ion exchangers, aerogels and alumina.

8. A filtering material according to claim 7, comprising a mixture of at least two substances selected from said group.

9. A filtering material according to claim 1, wherein the particle filtering media is present in an amount of from 100 to 900 g/m².

10. A filtering material according to claim 9, wherein the particle filtering media is present in an amount of from 400 to 605 g/m².

11. A filtering material according to claim 1, wherein said material is folded in zig-zag form and installed in a filter cassette.

12. A filtering material according to claim 1, wherein the electret material consists of polycarbonate or polypropylene microfibers.

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